

SERIAL NO. 09/762,833

TW-5922-A

Amendments to the Specification

The paragraph on page 5, lines 1-2:

C¹ controlling the polydispersity of the polymer being formed by [~~ying~~ varying the ratio of the number of molecules of (ii) to the number of molecules of (iii);

The paragraph on page 6, lines 1-6:

C² R is selected from the group consisting of optionally substituted [~~alk~~] alkyl; an optionally substituted saturated, unsaturated or aromatic carbocyclic or heterocyclic ring; optionally substituted alkylthio; optionally substituted alkoxy; optionally substituted dialkylamino; an organometallic species; and a polymer chain prepared by any polymerization mechanism; in compounds C and D, R• is a free-radical leaving group that initiates free radical polymerization;

The paragraph starting on page 6, lines 35-37 and ending on page 7, lines 1-5:

C³ The monomer moieties and value of q in the monomer repeating unit(s) derived from those in (i) are selected so that:

when $q \geq 1$ and Q [~~is~~] results from a single monomer species, then the polymer is a homopolymer;

when $q \geq 2$ and Q [~~is selected~~] results from the selection from 2 or more different monomer species in irregular sequence then the polymer is a copolymer; and

when $q \geq 2$ and Q [~~is selected~~] results from the selection from 2 or more different monomer species in which each different monomer or group of monomers appears in a discrete sequence then the polymer is a block copolymer.

The partial paragraph on page 15, lines 1-2:

C⁴ Saturated, [~~unsat—ted,~~] unsaturated, or aromatic carbocyclic or heterocyclic rings may contain from 3 to 14 atoms.

The partial paragraph on page 19, lines 1-3:

C⁵ likely to be higher than predicted by these relationships [~~cause~~] because of the limitations already mentioned. Nonetheless, these relationships serve as a useful guide in selecting reaction conditions.

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C⁶
The partial paragraph on page 28, lines 1-3:

from [—] 1:3 chloroform/ethanol gave the title compound as a red solid (77% yield), m.p. 222-224 °C (dec). ¹H-nmr (CDCl₃) δ (ppm): 4.66 (s, 12H); 7.30-7.60 (m, 18H) and 7.94 (m, 12H).

C⁷
The partial paragraph on page 30, lines 1-2:

g, 24.3 % yield). ¹H-nmr [(~~C-13~~)] (CDCl₃) δ(ppm): 1.25 (t, 3H); 2.90 (s, 3H); 4.07 (s, 2H) and 4.20 (q, 2H).

C⁸
The partial paragraph on page 33, lines 1-4:

(Kieselgel-60, 70-230 mesh, 1:4 ethyl acetate/*n*-hexane eluent), [~~enzy~~] S-benzyl diethoxyphosphinyldithioformate (20) was obtained (11 g, 18% yield) as a red oil. ¹H-nmr (CDCl₃) δ (ppm) 1.43 (t, 6H); 4.38 (s, 2H), 4.65 (q, 4H) and 7.30-7.45 (m, 5H).

C⁹
The paragraph on page 49, lines 1-5:

The experimental [~~ditions~~] conditions described in Example 19 (same molar concentrations) were used to prepare low polydispersity poly(methyl methacrylate) with *tert*-butyl trithioperbenzoate (21). After heating at 60 °C for 16 hours, poly(methyl methacrylate) was obtained (62.8% conversion; M_n 92 000; M_w/M_n 1.34).

C¹⁰
The title of Table 23 on page 52:

Table 23: Molecular weight and conversion data for [~~poly—rene~~] polystyrene prepared with 2-(ethoxycarbonyl)prop-2-yl dithiobenzoate (14) at 60 °C

C¹¹
The title of Table 25 on page 53:

Table 25: Molecular weight and conversion data for polystyrene [~~pre—red~~] prepared with benzyldiethoxyphosphinyldithioformate (20) at 100 °C

C¹²
The partial paragraph on page 61, lines 1-2:

[~~eo—sion~~] conversion). GPC results obtained after methylation of the diblock, gave polymer of M_n 4718 and M_w/M_n 1.18.

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The paragraph on page 63, lines 1-4:

C13
The star [~~poly(n-butyl acrylate)~~] poly(n-butyl acrylate) (0.5 g, M_n 23248, M_w/M_n 2.22) and styrene (2 mL) were transferred into an ampoule degassed, sealed and heated at 110°C for 16 hours. After removal of all the volatiles, the star block copolymer was obtained (1.3 g, 71.4% conversion) with M_n 82 500 and M_w/M_n 2.16.

C14
The partial paragraph on page 66, lines 1-2:

completion of the feeds the reaction mixture was held at 80°[—]C for a further 90 minutes. The reaction mixture was sampled periodically for GPC analysis.

C15
The title of Table 39 on page 67:

Table 39: Molecular weight and conversion data for poly(styrene) [a—] and poly(methyl methacrylate-*block*-styrene) prepared with benzyl dithioacetate in emulsion